STUDIO LIGHT

A MAGAZINE OF INFORMATION FOR THE PROFESSION



PUBLISHED BY THE
EASTMAN KODAK COMPANY
ROCHESTER NEW YORK

NOVEMBER 1919

SEED



PLATES

Latitude in a plate is that quality which permits of more or less variation in exposure without a corresponding variation in the quality of the resulting negative. Obviously, the greater the latitude the higher the percentage of good results.

Seed 30 Plates have exceptional speed, fineness of grain and the greatest latitude of any portrait plate made.

It's a Seed Plate you need.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

Large prints on

ARTURA CARBON BLACK

Retain the contact quality.

Increase your profits—sell them with every Christmas order.



Eastman Kodak Company, Rochester, N. Y.



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



STUDIO LIGHT

INCORPORATING

THE ARISTO EAGLE - THE ARTURA BULLETIN
ESTABLISHED 1901 ESTABLISHED 1906

Vol. 11

NOVEMBER 1919

No. 9

PLATES, FILM AND PAPERS ADVANCE

The time has come when raising the price of Dry Plates, Portrait Films and most photographic papers has become an absolute necessity.

The photographers have had and are having a big business, but like the manufacturers of photographic materials they have not, on the average, raised their prices in proportion to the prices on other goods. The photographer is entitled to a fair profit, and if he is unable to make it at the increased cost of material, he is justified in passing on to his customers this necessary increase in the cost of making photographs.

It is necessity, not opportunity, that is causing us to make an advance in the price of materials that we were long since justified in advancing, and no one can say the photographer is not equally justified in advancing his prices with a like motive.

The stability in the price of photographic materials during and since the war has been remarkable. Not that there was no excuse for raising prices, for there were opportunities without number, but we did not choose to take advantage of them.

When the war put up the cost of silver and glass and gelatine, we still held to our pre-war prices until our stocks of raw materials were exhausted, and then made but a slight advance in plates.

We hoped, after the signing of the armistice, that costs would go down slowly and that increased business and increased efficiency in production would enable us to maintain the old prices. Nearly eleven months have passed, but, instead of going down, costs have continued to advance, and an advance in the selling price of Plates, Film and Paper has become imperative.

This is an old story to consumers of practically every line other than photographic materials. We are proud of the fact that it is not an old story to photographers-that we have been able to hold down prices for so long. But silver has advanced about 125% above the pre-war price, gelatine about 75%, glass over 100%, paper is sky high; cotton, which enters so importantly into the film base, has risen violently, and the solvents and other chemicals have likewise rocketed. Such essentials as labels and boxes are already away up, and, with the cost of living mounting, we have naturally made large increases in our pay roll

Increased volume of business and increased efficiency in manufacturing methods, along with the loyalty of a great body of workers who have the incentive to do their work most efficiently, and well, have materially aided us, but could not overcome the handicap of advancing costs.

In no instance, during the war, or since, have we taken advantage of a shortage to boost prices. As long as we were able to keep our costs down through large, early purchases and economy, we gave the trade the benefit. But our old stocks are exhausted and our only course is to advance prices.

The advance will not make the prices of photographs prohibitive, and, we feel sure, will in no way affect the demand for portraits. There is no line of business, we believe, where the net average advances have been so small, during the war period, as in the photographic business. We feel that we can take an honest pride in the part we have taken in keeping prices down to the photographer, and that the photographer can likewise be proud of the fact that he has kept and can continue to keep the prices of photographs within the reach of all his customers.



THE VALUE OF PRO-CESS FILMS FOR SPECIAL WORK

By Alfred J. Jarman

Recently the writer experienced considerable trouble in the endeavor to secure intense black and white transparencies and negatives from some old and valuable letters. The paper upon which they were written had become very yellow, or to be more correct, a decided brown. The ordinary dry plate would not produce the contrast desired, no matter by what process it was intensified. It was decided to put the process film to practical use, with the endeavor to obtain, if possible, the best results.

These trials were made upon 5 x 7 Eastman Process films, developed with a Kodelon Hydroquinone developer, and after a thorough washing and fixing in a



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT

Copyrighted By Blank & Stoller New York, N. Y.



hyposulphite of soda fixing bath containing a moderate quantity of hardener, they were well washed again by changing the water half a dozen times in a separate tray, allowing about five minutes to elapse between each change. They were then bleached in a solution of bichloride of mercury, made by dissolving 120 grains of bichloride of mercury and 100 grains of chloride of ammonium in twenty-four fluid ounces of water. As soon as the films were well bleached, they were washed for five minutes in running water, then blackened with a solution of ammonia of the following strength: Half an ounce of strong water ammonia in eight fluid ounces of water. As soon as blackening was complete, which required about five seconds, they were washed in cold water for about two minutes, and then suspended to dry, as soon as they had been carefully wiped lightly with a tuft of absorbent cotton under a stream of water from the faucet.

The intensification was complete, no plate negative ever equalled them except those made by the wet collodion process.

The paper prints sent herewith were made from the negatives described.

There is no indication that these prints of old letters possessed any trace of a brownish yellow color in the white parts, or what would be the white paper, if the letter had been recently written.

Another advantage in the use of these films lies in the production of transparencies of valuable negatives so that a negative or any number of negatives may be made at any time in case the original negative should become broken. It may be said that the same thing can be done with a glass transparency, as has often been done, true, but there is still the risk of this kind of transparency becoming broken, while such risk is completely eliminated when the film is used. There are times when it is absolutely necessary to make a transparency from a negative 20 x 24", owing to the fact that such a negative cannot be made again from the original object. Take, for instance, when during the late world's war where so many beautiful structures in the fine cathedrals, and other historical buildings have been destroyed, a transparency made upon a film from any of such negatives would prove to be invaluable. Again, the risk that is run when printing from large glass negatives, from plates varying in size up to 24 x 40", is entirely obviated when a film negative is used. It is well known that considerable care must be taken to see that no grit of any kind be permitted to rest upon the supporting glass plate of the printing frame or machine, when a glass negative is used, while if



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



Bucking han Palace. M. fr. Ji Y. A. heddalp " describ to acknowledge to 2 That path Inthe let larmen he have cament acust him, lut with parchase kin , w. alm. if M. Sarma rich Int thin 2 Photopages of to Amer when the Ducket of Ant had Juch an it is how

Halftone of the Print from Process Film Negative

a film negative is to be printed from no risk need be feared from this cause or from uneven pressure. Upon one occasion the writer experienced the breaking of a glass negative, $24 \times 40''$, due apparently to uneven pressure. In this case it required two men to handle the printing

frame, owing to the glass supporting plate of the frame being three-eighths of an inch thick. In the case of a film negative no such accidents need be feared, because uneven pressure would not affect the negative, the only thing to be attended to in the event of using a large film nega-



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



tive would be to see that there was uniform contact with the paper upon the negative.

Another advantage of a film negative or transparency is in the printing of an ornamental edging upon a paper print, or transparency, which is produced by double printing. Such negatives or transparencies as these are used rapidly when a large number of prints are required. Only too often do these negatives for border printing become broken. For this reason the writer has adopted the plan of making such negatives upon 5 x 7 films, as well as providing an original film transparency for future use. Examples also of border printing sent herewith will give an idea as to how perfect a line drawing may be produced upon a film negative.

It is this kind of negative that has hard usage in every day work. No matter how perfect a glass negative may be made, it cannot be made accident-proof when it has to be handled so many times daily, while with a film negative, if it should be accidentally dropped, there is no fear of its becoming broken. If it should become very much scratched, another may be readily made from the original film transparency.

When making a transparency from a negative or a negative from a transparency by the use of the film, no difficulty has been experienced whatever for want of contact from buckling, either from film to glass or film to film, at any time when such negative or transparency is made in an ordinary printing frame, the film lending itself to any kind of pressure owing to its pliability and resilient quality.



NEWS OF THE NATIONAL ASSOCIATION

The National Convention will be held at Milwaukee, August 23–28, in the large Milwaukee Auditorium. The great Auditorium is an ideal meeting place for conventions and has been secured on terms very favorable to the National Association.

This great Auditorium has special advantages that make it attractive as a convention hall. It contains an arena with seating capacity of 10,000, good sized lecture and demonstrating rooms and a first class grill. The manufacturers' exhibits will be placed in the arena, the meetings, demonstrations and lectures in smaller halls and the banquet in the grill.

A contemplated feature of the 1920 Convention is a collection of the best pictures from each of the Amalgamated Associations. Each association will make but one entry of a certain number of pictures selected from the best work of individual members. The pictures will be judged and



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



a trophy valued at \$250.00 will be awarded to the exhibit receiving the greatest total of points, this trophy to be won two consecutive years to become the property of the winning association.

Plans are being formulated to secure the best talent available for practical business lectures and demonstrators and to furnish the services of these men to the Amalgamated Associations at practically no expense to them. In this way the National Association will play a helpful part in all convention affairs and by so doing gain strength and prestige for itself.

A big membership drive is planned for the second week in January, and this should have the hearty support of all photographers. A Captain will be selected for every city and town and an announcement of his appointment will soon be sent him along with literature explaining how the drive is to be conducted.

Two prizes of \$50.00 each will be awarded, one for the greatest number of memberships secured and one for the highest percentage of memberships in towns of ten or more photographers. Before the beginning of the membership drive every photographer in the country will receive a card setting forth the advantages of membership in the National Association. The drive will close Saturday night at midnight when

final reports will be sent to the Secretary. It is to be a live campaign and will mark the initial efforts of President-elect Chas. L. Lewis and the new Board toward making the National Association truly representative of all the photographers in the United States and Canada.



NEW METHOD OF SIL-VER RECOVERY

Silver, at the present time, is hovering around \$1.15 an ounce—sometimes higher, and with a safe, clean and unobjectionable method of recovering the silver that goes into your fixing baths, it is certainly as foolish to let solutions containing this precious metal go into the sink as it would be to upset your cash box and refuse to pick up the nickels and dimes.

Previous methods of silver recovery have been either objectionable or impractical, when it has been necessary to recover silver in the studio. First of all, the fumes of sulphureted hydrogen, which are given off when the silver is precipitated as silver sulphide, will fog any photographic material in the vicinity. But even if this were not so, the odor of the fumes is so objectionable that it is necessary to recover the silver away from the studio.

Because of the very small ex-



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



pense of the recovery by this process, however, the fact that it is possible to minimize the amount of sulphureted hydrogen given off, may be of interest. This can be done by neutralizing the hypo solution with caustic soda, testing with litmus to tell when it has become neutral, and then adding an excess of caustic soda in the proportion of ½ lb. to the barrel of 50 gallons.

The silver is then precipitated in the usual way by adding about one quart of freshly prepared saturated solution of sulphide of soda. Stir well and allow to stand for at least twenty-four hours. At the end of this time, dip out a graduate of solution, add a small amount of sulphide solution and if the solution remains clear, all the silver has been precipitated.

NEW ZINC METHOD

The zinc method of silver recovery which has been worked out in our Research Laboratory is in no way objectionable. The zinc used is the metal in granulated form, similar to metal filings, and is furnished by us at 45 cents per pound. It can be had by ordering through your dealer.

Place your exhausted hypo solutions in wooden kegs or barrels. If the bath is alkaline, it should be neutralized with acetic acid, using litmus paper as an indicator. Then add an excess of acid in the proportion of 1 oz. glacial or 3 ozs. 28% acetic acid to the gallon of solution. Then add the granulated zinc in the proportion of 2 lbs, to the gallon of solution and stir occasionally.

After twenty-four hours, the silver should all be precipitated as a black sludge of metallic silver. The progress of the extraction can be followed by taking a small portion of the liquid, making acid with a few drops of acetic and then adding a little sodium sulphide solution. A white precipitate indicates that all the silver has been removed—a black precipitate that some silver is still in solution and that the solution should stand longer.

When all the silver has precipitated and the solution is clear, decant it off. A convenient method is to have a spigot near the bottom of the barrel. The barrel or other container should then be filled up again and the operation repeated seven or eight times until the recovery becomes slow, owing to the exhaustion of the zinc.

The estimate of twenty-four hours for the recovery of silver is based on a fresh charge of zinc. As the extraction proceeds and the zinc is used up, the rate of precipitation falls off so that when more than two or three days are required to precipitate the silver, more zinc should be added.

As the silver is removed from the hypo solution, the zinc continues to dissolve in the acetic acid, but, allowing for this loss, a pound of zinc, costing 45 cents, will recover a pound of silver, worth approximately \$17.00, so the recovery is certainly worth while.

When sending silver residues to a refinery, it is more economical to save until a quantity has been accumulated, as a fixed assay charge is made regardless of the quantity submitted. In gathering the sludge from the bottom of the barrel, save every particle of the solid matter, draining it carefully before packing for shipment.

It might be added that zine dust was tried out thoroughly but was not found practical as it remains in suspension in the liquid and does not allow the liquid to be decanted readily. The coarser zine settles rapidly and takes the silver with it, making decanting a simple matter.



Eastman Portrait Film sales for the first eight months of 1919 were 122% in excess of those for the corresponding period of 1918—because film results are better results, and in many cases they are results that cannot be secured on plates.

4

YES, THERE WAS A

The following excerpt from a letter, written by a man connected with a New York house, which does a national business, is interesting:

"I was down to see my father a few evenings ago and found him perusing the 'ads' in one of the magazines. He was very quiet until he came across a full page 'ad' of Eastman's, which, by the way, wasn't very full. His remarks were to the effect that he couldn't see any sense to it as it didn't call attention to any of the good qualities of Kodaks but was more of an 'ad' for the local photographer.

"The 'ad' in question had at the top, 'Between friends—a photograph', then a big blank space, and at the bottom, 'There's a photographer in your town' 'Eastman Kodak Co.'

"With all due respect to your Advertising Manager, I had to admit that there didn't seem to be much 'sense' to the 'ad' but that it was just peculiar enough to attract attention, and that is what an advertisement is really for. However, there may be a little catch in the 'ad' that neither my father nor I could see through, and I thought possibly you would like to enlighten me so that I can explain that the Eastman Kodak Co. is not throwing its good money away."



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT





EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



He couldn't see the sense of it because it didn't advertise Kodaks but did advertise the local photographer. He was the unusual reader who wanted to know the "why" of it—and of course we took the trouble to explain to him.

He or some of his family have possibly been to a photographer by this time, or will be reminded to go before Christmas, because of his interest in that advertisement. That is all we expected. It is immaterial to us whether or not any one thinks we are throwing good money away so long as we know the advertisement is getting results for the photographer.

If we increase his business we will increase our own—not to the same extent, of course, for we do not sell all of the photographic material that is used. But we will trust to the quality of our goods to bring us our share of the business created.

This brings up a shallow argument against advertising that has often been used: "I can't advertise without my competitor getting the benefit of my advertising." The best advertising you can do will bring your competitor some business but it will bring you the greater share and so pay for itself. If it is poor advertising—if it is made up of selfish boasting, untruths or exaggerated claims, it will most likely drive business away. But if it is ad-

vertising written with the one idea of making more people want photographs, and the arguments are good, it will make business.



DIFFICULT THINGS TO PHOTOGRAPH PAINTINGS

AINTIN

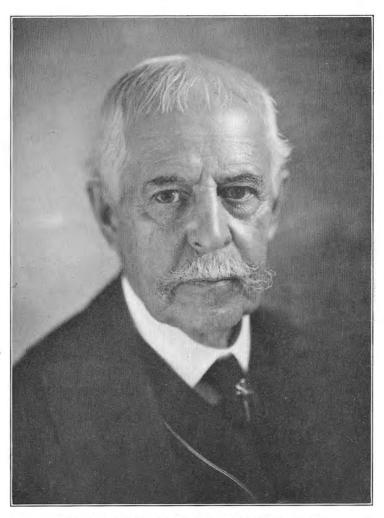
PART I

We receive inquiries from time to time as to the best methods of photographing various objects that any photographer may be called upon to photograph. And as any information we are able to give by correspondence can only reach a few, we will publish from time to time such information as we think may interest our readers.

Many photographers regard the copying in monotone of a painting as a thing to be avoided, and we will admit that the correct rendering of a highly colored painting is not so simple as copying a picture done in black and white, but it is not difficult if one goes about it in the proper way.

Color sensitive plates and filters have brought such work within the range of practical workmen and it is now possible for any photographer to produce copies of pictures which, for correctness of tone and color values, far surpass the work of the best specialists of a few years ago.

The subject is an exhaustive one, so we will not go into the



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



treatment of old paintings which often require considerable preparation to put them in condition for photographing. Most of the work encountered will require merely proper lighting, the right materials and filters and correct viewpoint.

A modern painting may be improved by varnishing, if it is an oil and has become dull, and this the owner may agree to have done. Water colors and pastels need no such treatment, though pastels should be framed with a glass sufficiently away from the surface to prevent the glass from touching the surface and smudging the picture. This may be accomplished by using a moulding with a lining which is the same as one frame inside another. The glass is placed in the frame with the lining back of the glass. The picture is then held as far away from the glass as the thickness of the lining.

When viewed from the position of the lens a painting should be evenly lighted over its entire surface and there should be no reflections. Pictures vary considerably owing to the roughness of the canvas and the method used in applying the paint. As a general rule placing the picture a trifle less than at right angles to the source of light (75°) is most suitable. The distance from the light depends upon the size of the picture. The larger the picture the further away from the

light it must be placed to secure even illumination.

Reflection must be entirely overcome, and this is simple if the light is from the proper angle and the lens is not of too short focal length. When a ray of light strikes a plane surface the angle of incidence and the angle of reflection are equal. You can readily determine where it is necessary to place the camera to avoid these reflections.

Reflections most likely to reach the lens would be those from the left edge of the picture. Draw an imaginary line from the left edge of the picture towards your camera at a right angle to the plane of the picture. If the source of light is three feet to the left of this line at a point eight feet from the picture, the reflection will be three feet to the right of the line at eight feet from the picture. If the picture was six feet wide you would have to place your camera directly in front of its center so you would be unable to photograph it at a distance of eight feet without getting a reflection.

This reflection would be overcome by having the light come more from the side, causing it to be reflected more to the opposite side or by using a lens of greater focal length, enabling the camera to be placed sufficiently away from the picture to escape all reflections from the light source. Reflections from the floor, the



EASTMAN PORTRAIT FILM NEGATIVE, ARTURA PRINT



ceiling, the side opposite the light or from the front must be eliminated. Those from the source of light must be avoided.

(To be continued.)



QUICK DRYING OF NEGATIVES

Few photographers make a business of rush commercial or portrait work, but you can, no doubt, recall a number of times when it would have been decidedly to your advantage to have turned out prints quickly. Drying of negatives is the usual hindrance to such quick work, but if the occasion arises and you must get out prints in a hurry, Portrait Film is the material you should use for your negative making. The drying method is as follows:

To an amount of water necessary to properly immerse the film, add Potassium Carbonate (E. K. Co.) until no more will dissolve. Then carefully filter the solution which should now have an oily appearance. After the film negative has been thoroughly fixed in the Acid Fixing and Hardening bath, it should be rinsed thoroughly for several minutes and the surplus water removed from both sides with a soft rubber squeegee. If the fixing and hardening has been thorough and the squeegee is clean, there will be no danger of scratching the negative.

The negative is now immersed in the saturated solution of Potassium Carbonate for two or three minutes, drained, and the excess carbonate solution removed in the same way as the excess water in the previous operation. The negative, which now feels quite hard and dry but seems to have a greasy surface, is laid on a perfectly clean surface and both sides are polished with a soft cloth.

The negative is now ready for printing and the entire operation of drying has not required more than four minutes.

After the required number of prints have been made, the negative should be washed thoroughly for at least fifteen minutes in water at a temperature below 70° F. in order to thoroughly remove the Potassium Carbonate from the film. If the water is over 70° F. the gelatine is very likely to reticulate during washing. No trouble need be feared from reticulation if the film is hardened in a 5% Formalin bath following the Acid Fixing Bath.

This quick drying method is not practical for use with plates because in the subsequent washing the gelatine film is most likely to leave its glass support and the negative be ruined. This does not occur with film because of the nature of the film and the greater adhesion of the gelatine to its film support.



At Christmas Time

Make your gifts personal ones. Photographs will solve a lot of problems for the busy man—as gifts they are always appreciated.

Make the appointment as soon as possible.

THE SMITH STUDIO

Line cut No. 269. Price, 80 cents.

THE ONLY CONDITION

We make but one condition
in our offer of cuts for the use of
photographers.

It is obvious that two photographers in the same town would not care to use the same cut, and we are therefore obliged to limit this offer to one photographer in a town. It will be a case of first come first served. The first order from a city will be promptly filled. Succeeding orders (if any) will necessarily be turned down and the remittance, of course, will be returned. It is also obvious that we cannot, on account of the cost of the drawings, furnish any large variety of cuts at the nominal prices quoted, and therefore can offer no substitute cut. Get your order in first.

E. K. CO,

We Buy Old Negatives either Portrait Film or Plates

We purchase lots of 100 pounds or more of Portrait or Commercial Film negatives, if in good condition and shipped in accordance with instructions. Before making any shipments, however, please secure packing instructions, prices and further particulars.

We purchase glass negatives of standard sizes from $4\frac{1}{4} \times 6\frac{1}{2}$ to 14×17 , provided same are in good condition and packed as per our instructions.

We will pay all the freight on shipments of 100 lbs. or more, except from localities where the freight rate exceeds \$1.00 per 100 lbs., in which case the shipper will be required to pay the excess.

For full instructions, shipping labels, prices, etc., address:

EASTMAN KODAK CO.

Department S.

ROCHESTER, N.Y.

Work in a better light— Work in a safer light.

Wratten Safelight Lamp



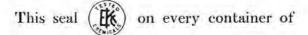
The soft, indirect light from the Wratten Safelight Lamp is restful to the eyes—it's a better light to work in, and the Safelight makes it safe. There is plenty of light, and a definite standard of safety.

Safelights are made for plates of varying degrees of sensitiveness and may be quickly interchanged. The No. 2 Safelight is furnished unless otherwise specified.

Wratten Safelight Lamp, No. 1		\$10.00
Do., No. 2, without slide for white light .		7.50
Series 1 Safelight, for plates not color sensitive, 8x	10	1.25
Series 2 Safelight, for Orthochromatic film or plat	es,	
8 x 10		1.25
Series 3 Safelight, for Panchromatic plates, 8 x 10) .	1.25

EASTMAN KODAK COMPANY,

ROCHESTER, N.Y.



EASTMAN TESTED CHEMICALS

marks the approval of our laboratory experts.

It is the precaution taken to safeguard the results you secure from the sensitive materials we manufacture.

Specify Eastman Tested Chemicals.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.



Equip your workrooms with

Eastman Visible Graduates

It's one of the little things, but the little things, taken collectively, make for greater efficiency.

The black opaque markings of these graduates enable

the worker to measure solutions rapidly and accurately. Even in the dim light of the dark-room the markings stand out plainly.

THE PRICE

	Eastman	Visible	Graduate	2-oz.					\$.25
	5.5	**	**	4-oz.			12		.35
	**	**		8-oz.		14			.50
	66	44	**	16-oz.					.75
	66	44	44	32-oz.					1.00

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

Built for service



EASTMAN METAL TRIMMERS

Are strong, accurate and convenient. They are positive in their cutting action—they stand up and give service. Made of metal, they can't warp—they always cut true.

Eastman Metal Trimmers are furnished in three sizes, with solid metal beds, ruled with white lines in one-half inch squares.

THE PRICE

No. 10—10-inch blade and rule . . . \$15.00 No. 15—15-inch blade and rule . . . 20.00 No. 20—20-inch blade and rule . . . 25.00

EASTMAN KODAK COMPANY.

ROCHESTER, N.Y.

ELON

Better Made—American Made

Energetic in its developing action, of lasting strength and uniform quality.

We recommend Elon for the richness and brilliancy of the prints it produces.

We make it—we know it's right.

THE PRICE

1	oz.	bottle	2		4.		4.	\$ 1.20
1/4	lb.	bottle						4.65
1/2	lb.	bottle				4	4	9.15
1	lb.	bottle		-			-	18.00

EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

EASTMAN Professional Booklets

The Photography of Colored Objects

A book which makes plain the theory of color rendering in monotone and the application of this theory to the practice of photography. With color charts, diagrams and comparative illustrations. Post paid, 50 cents

Reproduction Work with Dry Plates

with special reference to the use of Panchromatic Plates in Direct Screen Negative Making for three-color work. A booklet of special interest to the Photo-Engraver. Free on application

"Lantern Slides" How to Make and Color Them

A handbook of information concerning the production and coloring of lantern slides with a new method of dye toning by the aid of American made dyes.

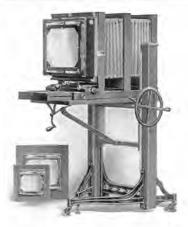
Free on application

"Elementary Photographic Chemistry"

The chemistry of photography with a description of the preparation and properties of the different chemicals used. Free on application

EASTMAN KODAK COMPANY.

ROCHESTER, N. Y.



A workman is judged by the tools he uses,

A Century Studio Outfit

is the efficient and impressive equipment that will create a sense of confidence in you and your workmanship.

And you will do better work because of its simplicity, precision, and smoothness of operation.

There is a Century Studio Outfit to meet every requirement.

Ask your dealer for Eastman Professional Catalogue

CENTURY CAMERA DEPARTMENT

EASTMAN KODAK COMPANY

ROCHESTER, N. Y.

Our new combination folder with 2, 3 or 4 openings, for either 3 x 4 or 4 x 6 oval or square inslip portraits.



THE COMBINO

Stock is our Florentine and the color Naples Brown, suitable for all tones.

It is a style every studio should feature, especially during Holiday time, as it is an ideal mounter to mail to friends with portraits of the Family—Children, etc. And again, it oftentimes means extra business—not only for new or extra sittings, but also from otherwise discarded negatives. See page 43 of our Fall catalog for detailed information.

Your salesman will show you samples, but if you want to start right now to feature this style write us to-day send ten 2c. stamps—mention Sample Offer No. 3012 and we will send one sample of any size as you may select.

TAPRELL, LOOMIS & COMPANY

(EASTMAN KODAK COMPANY)

CHICAGO, ILLINOIS

The Leading Card Novelty House of America.

ARTURA

Gives prints of the highest quality because it has the longest scale of gradation.

The paper without a disappointment.



EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

Because they mean better negatives—the sales of Eastman Portrait Film for the first eight months of 1919 were 122% in excess of those for the corresponding period of 1918.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.